

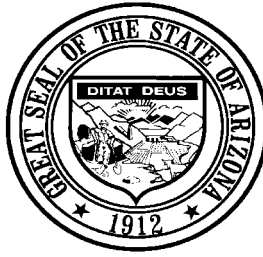
# **THE SCREENING POLICY AND GUIDANCE FOR PREVENTING CHILDHOOD LEAD POISONING IN ARIZONA**



**Bureau of Epidemiology and Disease Control Services  
Office of Environmental Health  
Investigation and Surveillance Section**

**July 1999**





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*State of Arizona*

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### *A Success Story*

This child had an elevated blood lead level of 27 Fg/dL that was identified through routine blood lead screening. The child was screened as part of the Arizona Health Care Cost Containment System's Early and Periodic Screening, Diagnosis, and Treatment program. The Arizona Department of Health Services (ADHS) performed an environmental investigation of the child's turn-of-the-century home located in a rural mining town. High levels of lead based paint were identified in both the exterior and interior of the home. High soil lead levels were also found in the yard where the child played. The ADHS provided the family with prevention counseling to decrease the child's lead exposure. The family took action to make a lead-safe home for their child. The parents performed cost-effective remediation measures, including hand-washing, mopping to control dust, and covering bare soil with grass and wood chips. The child's follow-up blood lead tests decreased and now remain below 10 Fg/dL. The mother, active in her community, encourages other parents with small children residing in older homes to ensure their children receive blood lead screening.

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## **INTRODUCTION**

This booklet presents the recommended Childhood Lead Poisoning Screening Policy for Arizona. This booklet also provides guidance, information and resources for health providers and others involved in lead poisoning prevention. All guidance in this booklet is based upon the Centers for Disease Control and Prevention's (CDC) recommendations. This document was written by the Arizona Department of Health Services (ADHS) and does not necessarily reflect the views of all members of the Lead Poisoning Screening Coalition. For more information, please contact the ADHS at (602) 230-5830.

## **THE ARIZONA CHILDHOOD LEAD POISONING SCREENING POLICY**

In 1997, the CDC recommended that state health officials develop a statewide plan for childhood lead poisoning screening by convening an inclusive planning committee. This recommendation entailed a move away from the CDC's previous recommendation for universal screening of all children to a risk-based approach to screening. CDC suggested that targeted screening of high-risk children might be appropriate under certain conditions. Nationally, blood lead levels continue to decline, offering the hope that lead poisoning can be eliminated in the not too distant future. Yet, some children continue to be exposed to this toxicant at an unacceptable rate. The purpose of this state plan is to increase the screening and follow-up care of children who most need these services and to ensure that screening is appropriate for local conditions.

In November 1998, the ADHS Office of Environmental Health's Childhood Lead Poisoning Prevention Program formed a coalition to develop a statewide lead poisoning screening policy. The coalition is comprised of physicians, managed care organizations, members of the community, county health departments, local, state, tribal, and federal agencies, child advocacy groups, laboratories, and other health professionals. After four meetings and extensive debate, the coalition recommended, in February 1999, the following universal screening policy for Arizona:

### **Arizona Childhood Lead Poisoning Screening Policy**

- 1. All children in Arizona should receive at least one venous or capillary blood lead test between the ages of 12 and 24 months. Children 25-72 months of age should receive a blood lead test, if not previously tested.**
- 2. Children covered by the Arizona Health Care Cost Containment System (AHCCCS) and KidsCare should be screened according to Health Care Financing Agency (HCFA) requirements, as follows: screen all AHCCCS and KidsCare children at 12 and at 24 months of age; screen children 36-72 months of age who have not been previously tested.**

The policy is a recommendation for all Arizona health care providers to follow. Unlike the HCFA lead poisoning screening requirements, this policy does not mandate screening nor are funding resources for screening provided.

The coalition selected a universal screening policy, as opposed to a targeted screening policy, for two reasons. First, there are a variety of lead sources in Arizona, including lead-based paint, folk medicine and imported pottery. The ubiquitous nature of these sources makes it difficult to define high risk target populations or geographic areas. Second, only limited screening data are available for use in characterizing risks. Only minimal screening of young children has occurred statewide, mainly through the AHCCCS program. The most recently available data suggest that only 4% of all young Arizona children have been screened. Further, non-elevated results are not reportable by law, precluding the estimation of prevalence rates and at-risk populations. Efforts are underway to change reporting rules and increase screening compliance. Once lead-poisoning risks and rates have been more fully characterized among Arizona's children, the coalition will reconvene to discuss the possibility of amending the screening policy.

The screening policy does not supplant AHCCCS and KidsCare requirements that mandate the screening of children at 12 months and another screen at 24 months. All other children should be screened between the ages of 12 and 24 months, the ages when children are most vulnerable to lead poisoning.

The policy calls for blood lead testing. The coalition encourages the use of fingerstick testing because this type of draw is less invasive than a venous draw. A venous draw, however, is more reliable. It should be noted that a positive fingerstick test should be confirmed with a venous test. The coalition did not recommend the use of a verbal risk questionnaire in screening children.

## **LEAD POISONING PREVENTION**

**Childhood lead poisoning is a totally preventable disease.** Health care providers and public health organizations have the responsibility to:

- Provide anticipatory guidance to prevent lead poisoning before it occurs
- Identify children who need screening, and
- Ensure that lead-poisoned children receive services.

## **HEALTH EFFECTS**

Lead poisoning is defined as a blood lead level of  $\geq 10$  Fg/dL in children. According to the CDC, blood lead levels as low as 10 Fg/dL affect children's ability to learn. Very high blood lead levels ( $\geq 70$  Fg/dL) cause seizures, coma, and death. Lead poisoning affects virtually every system in the body. Most children are asymptomatic. Signs and symptoms of lead poisoning may include:

- Lack of appetite
- Vomiting
- Fatigue
- Anemia
- Decreased intelligence

- Impaired neurobehavioral development
- Decreased stature or growth
- Decreased hearing acuity
- Abdominal pain
- Attention deficit
- Seizures, coma, and death in severe cases.

### **PATHWAYS OF LEAD EXPOSURE**

- Ingestion
- Inhalation.

Children between the ages of 12 - 36 months are most vulnerable to lead poisoning because:

- They ingest more lead due to hand-to-mouth behavior
- Their gastrointestinal tracts absorb more lead than adults
- Their developing central nervous systems are more sensitive to the effects of lead poisoning.

Nutrient deficiencies in iron, calcium, vitamin C, and protein increase the vulnerability to lead poisoning and its adverse effects.

### **SOURCES OF LEAD EXPOSURE**

- Lead-based paint, if the paint is deteriorating or disturbed (remodeling)
- Household dust that contains residues from lead-based paint
- Lead-contaminated soil
- Water
- Imported pottery used for cooking and storing food
- Folk remedies containing lead
- Some imported crayons, toys, and lead toy soldiers
- Some imported vinyl miniblinds and vertical blinds
- Mines, smelters, brass/copper foundries
- Firing ranges, bullets, fishing weights, sinkers
- Automotive radiator repair and automotive batteries
- Stained glass making and ceramics
- Occupational take-home exposure; adults who bring lead dust home on their clothes.



## **CHILDHOOD LEAD POISONING IN ARIZONA**

Some populations of children are heavily exposed to lead while others are not. A recent ADHS study in central Phoenix showed a 10% rate of lead poisoning ( $\geq 10$  Fg/dL) among the one-and two-year-olds. This is significantly higher than the national rate of 5.9% for 1- 2 year-olds. Other studies have shown a low prevalence of lead poisoning in selected populations. The ADHS lead poisoning surveillance registry receives 300 to 500 reports of childhood lead poisoning cases per year. Estimates suggest that only 4% of all at-risk children are being screened statewide. Most screening is through AHCCCS health care providers.

Lead-based paint in homes is the most important source of exposure, according to the ADHS registry and national data. The older the house, the more likely it is to contain lead-based paint. In Arizona, approximately 64% of all the homes were built before 1978, when lead-based paint was banned. Almost 7% of the housing was built prior to 1950, when the concentration of lead in the paint was higher. Some neighborhoods have more than 75% pre-1950 homes and, therefore, children in these areas are at greater risk for lead poisoning.

Lead-containing folk remedies and imported pottery are common sources in Arizona. These lead sources are implicated in about half of the lead poisoning case investigations. Some members of the Hispanic community use “azarcon,” an orange lead oxide powder, or “greta,” a yellow lead oxide powder, for *empacho*, or digestive ailments. Clay pottery made in Mexico usually contains high amounts of lead in the glaze and paint. The pottery is used for cooking and storing beverages, and is frequently sold in retail stores in Arizona and in Mexico. Both pottery and folk remedies have been implicated in cases involving blood lead levels as high as 60 Fg/dL.

Minority and low socioeconomic status are risk factors for lead poisoning. Three quarters of the reported lead poisoning cases in Arizona occur in Hispanic children. Three quarters of the cases are on AHCCCS.

## **ANTICIPATORY GUIDANCE**

Health providers should provide anticipatory guidance to parents during prenatal visits, when children are 3-6 months of age, and again when they are 12 months of age. Parental guidance at these times may prevent lead exposure and the increase in blood lead levels that often occur in the child’s second year of life. Guidance may include information on:

- Hazards of deteriorating lead-based paint in older housing
- Methods of controlling lead hazards (wet mopping, importance of keeping paint in good condition, washing child’s hands often, especially before eating and sleeping)
- Hazards of scraping paint and renovating pre-1978 homes
- Other lead sources listed on page 3.

## **BLOOD LEAD SCREENING RECOMMENDATIONS**

- 1. All children in Arizona should receive at least one venous or capillary blood lead test between the ages of 12 and 24 months. Children 25 -72 months of age should receive a blood lead test, if not previously tested.**
- 2. Children covered by the Arizona Health Care Cost Containment System (AHCCCS) and KidsCare should be screened according to Health Care Financing Agency (HCFA) requirements, as follows: screen all AHCCCS and KidsCare children at 12 and at 24 months. Screen all children 36-72 months of age, if not previously tested.**

Children should be screened by a blood lead measurement of either a venous or capillary (fingerstick) blood specimen. The venipuncture is a more accurate procedure with fewer false positive results, but is more invasive. The capillary draw is less expensive, an easier method of testing, and is less invasive. The capillary draw must be followed by a confirmatory venous draw when the capillary test result is  $\geq 10$  Fg/dL. If children's fingers are properly cleaned, capillary sampling can perform well as a screening tool.

Blood lead screening also is indicated when:

- A child's likelihood of exposure has increased
- Child is older and has excessive mouthing behavior or an exposure to lead
- A sibling or playmate has an elevated blood lead level
- Parents have knowledge of a child's lead exposure and request screening
- Children have unexplained symptoms or signs that are consistent with lead poisoning (See pages 2-3).

Health care providers should provide family education. The ADHS provides assistance to families and health care providers in this area. Family education includes:

- Interpretation of blood test results
- Potential adverse effects of elevated blood lead levels
- Sources of exposure and ways to reduce exposure
- Directions and importance of proper cleaning to remove lead dust on floors, window sills, and any other surface, and the ineffectiveness of dry methods of cleaning
- The importance of good nutrition in reducing the absorption and effects of lead, adequate calcium and iron, and regular meals
- The need for follow-up testing to monitor the blood lead level
- Results of the environmental investigation performed by ADHS, if applicable
- Hazards of improper removal of lead based paint. Particularly hazardous are open flame burning, power sanding, water blasting, chemical stripping, and sanding and scraping.

## **DIAGNOSTIC TESTING FOR CHILDREN WITH ELEVATED BLOOD LEAD LEVELS**

A diagnostic test is the first venous blood lead test performed within 6 months on a child with a previously elevated blood lead level on a screening test. If the diagnostic test is not performed within 6 months, the next test is considered a new screening test, and decisions about follow-up testing should be made on the basis of the new test, and not on the basis of the original screening test.

<b>If the result of the screening test is:</b>	<b>Perform diagnostic test on venous blood within:</b>
10-19 Fg/dL	3 months
20-44 Fg/dL	1 month - 1 week
45-59 Fg/dL	48 hours
60-69 Fg/dL	24 hours
$\geq 70$ Fg/dL	Immediately as an emergency lab test

It is relatively common for children to have slightly elevated screening test results that do not persist on additional testing. For this reason, it is preferable to base intervention on the results of diagnostic testing.

Consider performing the diagnostic test sooner than indicated in the accompanying schedule if:

- The child is less than 12 months old, or
- There is reason to believe that a child's blood lead level may be increasing.

## **FOLLOW-UP TESTING FOR CHILDREN WITH ELEVATED DIAGNOSTIC BLOOD LEAD LEVELS**

A follow-up test is a venous blood lead level test used to monitor the status of a child with an elevated diagnostic test result.

<b>If the result of the diagnostic test is:</b>	<b>Perform follow-up test on venous blood within:</b>
10-14 Fg/dL	3 months
15-19 Fg/dL	2 months
$\geq 20$ Fg/dL	Child should receive clinical management (See page 8)

If the result of follow-up testing is  $\geq 20$  Fg/dL, or if the child has had two or more venous blood lead levels of 15-19 Fg/dL at least 3 months apart, the child should receive clinical management.

## **REPORTING OF ELEVATED BLOOD LEAD LEVELS AND FOLLOW-UP SERVICES**

Physicians and clinical laboratories are required by law to report all elevated blood lead levels  $\geq 10$  Fg/dL in children and adults. Note that this includes reporting of venous and fingerstick screening, diagnostic, and follow-up tests. Reports must be made to the ADHS within 5 days of the elevated result. The reporting form is in Appendix C; the statute and rule requiring the reporting are in Appendix C-1 and C-2. Additional reporting forms are available from ADHS at (602) 230-5830.

The ADHS uses reports of elevated blood lead levels to conduct a disease surveillance program and to provide follow-up services to families. Follow-up services include prevention counseling, environmental investigation, case management, and referrals to housing, abatement and other prevention resources.

## **COMPREHENSIVE FOLLOW-UP SERVICES AND COORDINATION OF CARE**

Comprehensive services are best provided by a team that includes the health-care provider, care coordinator, ADHS staff, social worker, housing specialist, and others. Because childhood lead exposure is likely to be associated with poor and deteriorating communities, children with elevated blood lead levels also may have problems such as inadequate housing, lack of routine medical care, and poor nutrition. Children also may need educational services. The team can ensure the provision of these services. The attached resource guide provides resource names and telephone numbers for potential team members (See Appendix A). Clinical management, environmental investigation, and lead hazard control are discussed later in this booklet.

<b>Blood Lead Levels (BLLs) (Fg/dL)</b>	<b>ACTION</b>
< 10	Reassess or rescreen in 1 year. No additional action necessary unless exposure sources change.
10-14	Provide family lead education. Provide follow-up testing. Refer for social services, if necessary.
15-19	Provide family lead education. Provide nutritional counseling and correct iron deficiency, if necessary Provide follow-up testing. Refer for social services, if necessary. If BLLs persist (i.e., 2 venous BLLs in this range at least 3 months apart) or worsen, proceed according to actions for BLLs 20-44 Fg/dL.

<b>Blood Lead Levels (BLLs) (Fg/dL)</b>	<b>ACTION</b>
20-44	Provide coordination of care Provide clinical management Provide environmental investigation Provide lead hazard control
45-69	Within 48 hours, begin coordination of care, clinical management, environmental investigation, and lead hazard control
≥70	Hospitalize child and begin medical treatment immediately. Begin coordination of care, clinical management , environmental investigation, and lead-hazard control immediately.

## **CLINICAL MANAGEMENT**

Health Care Providers should conduct clinical management for children with elevated blood lead levels. Clinical management includes:

- Clinical evaluation for complications of lead poisoning
- Lead education materials (sent by ADHS to families of lead poisoned children)
- Chelation therapy, if appropriate
- Follow-up testing at appropriate intervals.

### **1) Clinical evaluation**

Components of Clinical Evaluation:

Medical history:

Symptoms

Developmental history, including failure to thrive

Mouthing activities

Pica

Previous blood lead levels; history of anemia

Family history of lead poisoning.

Environmental history:

Age, condition, repainting or remodeling of residence or any other place the child spends time (secondary homes, relatives' homes, day-care centers, etc.)

Occupational and hobby histories of adults with whom the child spends time

Other local sources of potential exposure.

Nutritional history:

Dietary history

Food Stamps or WIC participation.

Physical examination with particular attention to:

Growth curve

Neurologic examination

Psychosocial and language development.

Additional diagnostic assessment depending on circumstances. Diagnostic testing may include:

Formal neurobehavioral assessment

Abdominal X ray for radiopaque material

Long-bone films for growth arrest lines

Zinc protoporphyrin or free erythrocyte protoporphyrin

Findings of language delay, developmental delay or other neurobehavioral or cognitive problems should prompt referral to other appropriate programs, i.e., AzEIP (See Appendix A). Children may need early intervention programs and further examinations during the early school years to facilitate entry into an appropriate educational program.

## **2) Family education**

Identified nutritional problems should be corrected. Absorption and toxicity of lead may be increased by :

- Calcium and iron deficits
- An empty stomach. Eating smaller and more frequent meals is recommended.

Refer children for appropriate social services if problems such as inadequate housing, lack of routine health care, or need for early intervention educational services are discovered. ADHS may also provide referral sources. (See Appendix A).

## **3) Chelation therapy**

Prior to initiation of chelation, it is important to be certain that there is no ongoing source of lead, either in the child's immediate environment or in the gastrointestinal tract. Abdominal X ray may be useful prior to commencing treatment.

≥20 Fg/dL      Patient is a possible candidate for oral chelation. Consult medical toxicologist for guidance.

≥45 Fg/dL      Initiate oral chelation therapy promptly. Remove child from sources of lead exposure.

≥70 Fg/dL      Initiate chelation therapy immediately. If such an elevated result is obtained on a capillary sample, order an immediate diagnostic test and initiate chelation while that test is being performed, if there is reason to believe that the results of the screening test are accurate (e.g., if it was obtained by a skilled phlebotomist under controlled conditions). Discourage the family from returning the child to the same lead-poisoned

environment.

Before chelation is initiated:

- |                         |                                                                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $<70 \text{ Fg/dL}$     | Perform a second blood lead level test on a venous specimen to ensure that therapy is based on the most recent and reliable information possible. Levels of 60-69 Fg/dL should have a venous test within 24 hours. |
| $\geq 70 \text{ Fg/dL}$ | Perform an urgent repeat test, but begin chelation therapy immediately, without waiting for the repeat test result.                                                                                                |

A child who is receiving chelation therapy should be tested at least once a month. When chelation is terminated, blood lead levels should be monitored frequently to address the possibility of lead rebound from the bones into the blood and until sources of lead have been identified.

See Appendix A for M.D. toxicologists who can provide physician guidance.

#### **4) Follow-up testing**

A follow-up test is a venous blood lead test used to monitor:

- The status of a child with an elevated blood lead level on a diagnostic test
- The effectiveness of the services that child is receiving (i.e., prevention advice and counseling, lead hazard control, chelation therapy).

Children who are receiving clinical management should be tested at 1- to 2-month intervals until all of these conditions are met:

- The blood lead level has remained  $<15 \text{ Fg/dL}$  for at least 6 months, and
- Lead hazards have been resolved, and
- There are no new exposures.

When these conditions have been met, children should be tested approximately every 3 months.

Children for whom these three conditions are met and who have reached 36 months of age no longer need to receive follow-up testing.

## **ENVIRONMENTAL CASE FOLLOW-UP**

The ADHS provides family education and environmental investigations, sometimes in cooperation with county health departments, in accordance with the CDC 1997 guidelines, as follows:

### **Blood lead levels of $\geq 10$ Fg/dL and $< 20$ Fg/dL**

- Counseling by phone
- Educational materials by mail
- Referrals to other resources
- Certified letters if the family cannot be contacted by phone.

### **Blood-lead levels of $\geq 20$ Fg/dL or two consecutive tests $\geq 15$ Fg/dL three months apart**

- Environmental investigation, including in-home interview and environmental sampling to identify lead sources
- Specific intervention and prevention advice
- Referrals to other resources.

The ADHS provides reports of family contact and findings to the health care provider.



## **MANAGEMENT OF LEAD HAZARDS, AS RECOMMENDED BY THE CDC**

Parents can reduce their child's exposure to lead.

- Lead-based paint should be removed by a professional. Sanding or scraping lead-based paint may contaminate the home further; lead-based paint should be abated by qualified professionals.
- Wash children's hands often. Wash toys and pacifiers often.
- Do not let children eat dirt. Food and bottles should not be consumed outside. Do not allow children to eat food that has fallen on the ground.
- Keep homes dust free and clean. Mop floors and wash window sills with a household cleaner at least two times per week.
- Do not use lead-containing folk remedies or imported or handmade pottery. Do not have lead-containing miniblinds in the house.
- Feed children foods rich in iron and calcium. A child who gets enough iron and calcium will absorb less lead. The diet should contain:
  - A) Foods rich in iron include beef, turkey, greens, spinach, dried beans/peas/lentils, iron-fortified cereal, whole wheat bread, dried apricots/peaches/pears, and molasses.
  - B) Foods high in calcium include milk, cheese, and yogurt.
- Feed children healthy snacks and regular meals throughout the day. An empty stomach absorbs more lead.
- Do not bring home lead from work on clothes or body. Jobs that involve lead include radiator repair, welding, battery recycling, and mining/smelter activities. Take precautions at work to limit your lead exposure. Shower, wash your hair, and change your clothes and shoes so you don't track lead or lead dust home to your children.
- ADHS can tell you where to get paint, soil, water and other sources tested for lead. Lead-based paint testing and abatement should only be done by qualified professionals. For more information contact the ADHS at 1-800-367-6412 or (602)-530-2830

## **REFERENCES**

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Centers for Disease Control and Prevention (November 1997), "Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials."

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## APPENDIX A

### ARIZONA LEAD POISONING RESOURCE GUIDE

Arizona Department of Health Services	
Office of Environmental Health (OEH) Childhood Lead Poisoning Prevention Program*	(602) 230-5830 Fax # (602) 230-5933
Arizona Children's Information Center Arizona Early Intervention Program(AzEIP)	800-232-1676 (Info. Center) (602)-941-2199 (phone)
Office of Environmental and Analytical Chemistry (Laboratory)	(602) 542-6121 Fax # (602) 542-1169
Office of Nutrition Services, Women's, Infants' and Children's Program (WIC)	(602) 542-1886 Fax # (602) 542-1890
Arizona Department of Commerce	
Office of Housing and Infrastructure	(602) 280-1365 Fax # (602) 280-1470
Arizona Department of Environmental Quality (ADEQ)	
Water Quality Division, Drinking Water Program Development and Outreach Unit	(602) 207-4643 Fax # (602) 207-4634
Waste Programs Division, Hazardous Waste Compliance Unit	(602) 207-4108 Fax # (602) 207-4138
Arizona Industrial Commission	
Office of Industrial Hygiene, Compliance and Enforcement	(602) 542-1770 Fax # (602) 542-1614
Office of Consultation, Education and Training	(602) 542-1769 Fax # (602) 542-1614
Arizona Department of Real Estate (ADRE)	
Customer Service	(602) 468-1414 x 100 Fax # (602) 955-6284
Arizona Health Care Cost Containment System (AHCCCS)	
Office of the Medical Director, General AHCCCS and EPSDT Information	(602) 417-4000 Fax # (602) 254-1769
KidsCare	(602) 417-5437 Fax # (602) 417-6850
Chicanos Por La Causa	

Administration	(602) 257-0700 Fax # (602) 256-2740
City of Phoenix	
Lead Hazard Control Program	(602)495-0700 Fax # (602) 534-4559
Water /Services/Compliance & Regulatory Affairs Office	(602) 262-5012 Fax # (602) 285-5542
City of Tucson Community Services Department	
Administration (housing)	(520) 791-4171 Fax # (520) 791-5407
Drug and Poison Information Center	
<b>Statewide Toll Free Hot Line</b>	<b>Hotline: 800-362-0101</b>
Samaritan Regional Poison Center, M.D. Toxicologists	(602) 253-3334
Arizona Poison and Drug Information Center, M.D. Toxicologists	(520) 626-6016
Maricopa County Organizing Project	
This project promotes human rights, protects communities and the environment, and works for social and economic justice	(602) 254-5230 Fax # (602) 252-6094
Maricopa County Department of Public Health Services**	
Lead Hazard Program	(602) 506-6910, (602) 506-6782 Fax # (602) 506-6896
Pima County Health Department**	
Disease Control	(520) 740-8315 Fax # (520) 791-0366

\* For: 1) questions pertaining to the Lead Poisoning Registry, 2) general lead poisoning education, and 3) for reporting elevated blood lead test results ( $\geq 10$  Fg/dL).

\*\* All elevated blood lead level test results should be reported to ADHS at (602) 230-5830 (see ADHS above).

The City of Phoenix Lead Hazard Control Program provides lead-based paint abatement services to low-income families in certain neighborhoods in Phoenix. This program is funded through a grant from the U.S. Housing and Urban Development program (HUD). No other public funding exists in Arizona for lead-based paint abatement. The ADHS can provide referrals to private companies that provide lead-based paint testing and abatement services. Outreach and education materials are available through ADHS, the Office of Environmental Health, at 1-800-367- 6412. This information is available for health care providers, managed-care organizations, and the public. Speakers are available to give presentations on lead poisoning epidemiology and prevention.



# ELEVATED BLOOD LEAD LEVEL REPORT

ARIZONA ADMINISTRATION CODE R904-301  
REQUIRES REPORTING OF ALL BLOOD LEAD  
LEVELS OF 10 Fg/dL OR GREATER WITHIN  
5 DAYS FOR ALL CHILDREN AND ADULTS.

CONFIDENTIAL  
LEAD POISONING PREVENTION PROGRAM  
ARIZONA DEPARTMENT OF HEALTH SERVICES  
3815 NORTH BLACK CANYON HIGHWAY  
PHOENIX, ARIZONA 85015  
(602) 230-5830 1-800-367-6412 FAX (602)230-5933

PLEASE SUBMIT REPORT BY PHONE, MAIL OR FAX. IF FAXED,  
PLEASE CALL AHEAD TO ENSURE CONFIDENTIALITY.

PATIENT LAST NAME			PATIENT FIRST NAME		DATE OF BIRTH	
HEALTH PLAN NAME*			G AHCCCS*		HOME PHONE:	
			G KIDS CARE*		( )	
MEDICAID ID NUMBER*			G SELF PAY*		MESSAGE PHONE:	
			G IHS PATIENT*		( )	
			G TOBACCO TAX*			
STREET ADDRESS			MAILING ADDRESS			
CITY		COUNTY	ZIP CODE			
SEX G MALE G FEMALE	PARENT OR GUARDIAN NAME*					
RACE			ETHNICITY		LANGUAGE (PATIENT OR GUARDIAN)	
G BLACK G NATIVE AMERICAN G OTHER: _____			G HISPANIC		G ENGLISH G SPANISH	
G WHITE G ASIAN G UNKNOWN			G NON-HISPANIC		G OTHER _____	
IF AN ADULT, PROVIDE EMPLOYER'S BUSINESS NAME, ADDRESS & PHONE NUMBER*					OCCUPATION	
BLOOD LEAD LEVEL	COLLECTED:	DATE RESULT REPORTED FROM LABORATORY*	G VENOUS*		ADHS USE:	
Fg/dL			G CAPILLARY*		G SCREEN G CONFIRMATORY	
					G FOLLOW-UP	
					CONFIRMED? G YES G NO	
					INVESTIGATION G YES G NO	
LABORATORY NAME					PHONE*	
ADDRESS		CITY		STATE	ZIP CODE	
PERSON MAKING THIS REPORT, LAST NAME			PERSON MAKING THIS REPORT, FIRST NAME			
PHYSICIAN LAST NAME*			PHYSICIAN FIRST NAME*			
PRACTICE OR CLINIC*			ADDRESS			
CITY			STATE	ZIP	PHONE	
COMMENTS:						

Please send the white copy to the ADHS. Keep the yellow copy for your files.

\*This information is essential to case follow-up, although not required by law to be reported.

## APPENDIX C-1

### Arizona Revised Statutes Title 36 - Public Health and Safety Chapter 13- Safety Article 6- Lead-Based Paint

#### 36-1671. Definitions

In this article, unless the context otherwise requires:

1. "Department" means the state department of health services.
2. "Director" means the director of the state department of health services.
3. "Lead-based paint" means any paint containing more than five-tenths of one percent lead by weight (calculated as lead metal) in the total nonvolatile content of liquid paints or in the dried film of paint already applied.
4. "Local agency" means a local board of health or a local health department established pursuant to title 36, chapter 1, articles 3 and 4.

#### 36-1672. Local programs

A. The department is authorized to develop and conduct local programs for the prevention, detection and treatment of lead-based paint poisoning, subject to legislative appropriation. Such authorization shall include:

1. Educational programs intended to communicate the health danger and prevalence of lead-based paint poisoning among children to parents, educators and local health officials.
2. Development and carrying out of community testing programs designed to detect incidence of lead poisoning due to lead-based paint and other sources among community residents and to insure prompt medical treatment for such afflicted individuals.

B. The director may delegate to any local agency the authority to conduct the local program within such local agency's jurisdiction as provided in section 36-136, subsection D.

#### 36-1673. Reporting of lead levels

The director shall adopt rules and regulations establishing an effective procedure under which all physicians licensed pursuant to the provisions of title 32, chapter 13 or 17 shall report to the department all analyses of blood samples which indicate significant levels of lead. The regulations shall include such necessary criteria to determine those levels of significance which shall be reported.

#### 36-1674. Prohibited acts; classification

A. It shall be unlawful for any person to:

1. Apply lead-based paint to any interior surface of residential housing or a public building and to the exteriors and porches of such housing and buildings in any area which is readily accessible to children under seven years of age.
2. Apply lead-based paint to any toy, furniture, cooking utensil, drinking utensil, or eating utensil in violation of the requirements established by the director.
3. Sell or distribute any toy, furniture, cooking utensil, drinking utensil, or eating utensil containing any lead-based paint which does not conform with the requirements established by the director.

B. Lead-based paint that may be purchased by the general public shall not be sold or distributed in any form unless the container is clearly labeled as follows:

"(Front panel)

Warning'.  
Contains lead  
Dried film of this paint may be  
harmful if eaten or chewed  
See other cautions on (side or back) panel.\*

(Back or side panel)

Cautions

**Do not apply on toys and other children's  
articles, furniture, or interior surfaces  
of any dwelling or facility which may be  
occupied or used by children.  
Do not apply on those exterior surfaces of  
dwelling units, such as windowsills, porches,  
stairs, or railing, to which children may be  
commonly exposed.  
Keep out of reach of children."**

The signal word, the statement of the principal hazard or hazards, and instructions to read carefully any cautionary information that may be placed elsewhere on the label shall appear together on the main panel of the label. Such information shall be placed together and distinctively apart from other wording or designs. The necessary prominence shall be achieved by placement within the borders of a square or rectangle with or without a borderline, and by use of suitable contrasts with the background achieved by distinctive typography or color, and by both color and typography when needed. The signal word and statement of hazard shall be in capital letters. The signal word shall be of a size bearing a reasonable relationship to the other type on the main panel, but shall not be less than eighteen point type, and the size of the statement of hazard shall not be less than twelve point type unless the label space on the container is too small to accommodate such type size. When the size of the label space requires a reduction in type size, the reduction shall be made to a size no smaller than necessary and in no event to a size smaller than six point type.

- C. The label requirement required by subsection B shall not apply to artists' supplies.
- D. Any person who violates a provision of this section is guilty of a class 1 misdemeanor.

#### **36-1675. Administration**

- A. The director may adopt such rules and regulations as may be necessary and feasible to implement the purposes of this article.
- B. No person shall interfere, obstruct or hinder an authorized representative of the department in the performance of his duty to administer the provisions of this article or the rules and regulations adopted thereunder.
- C. The department, through its authorized representative, may take samples of materials for inspection and analysis, and hold for any item regulated by this article.
- D. The department, through its authorized representative, may remove from availability for sale any regulated item when there is reasonable cause to believe a violation of this article or the rules and regulations adopted thereunder exists. When such regulated items are removed from availability for sale, they shall be so tagged, and such tags shall not be removed except by an authorized representative of the department, or as the department may direct, after satisfactory proof of compliance with all requirements of this article and such rules and regulations and a release for sale has been issued by the department through its authorized representative.

**TITLE 9. HEALTH SERVICES  
CHAPTER 4. DEPARTMENT OF HEALTH SERVICES  
NONCOMMUNICABLE DISEASES  
ARTICLE 1. DEFINITIONS**

Section

- R9-4-101. Definitions, general
- R9-4-102. Pesticide Illness
- R9-4-103. Definitions: Blood Lead Levels

**ARTICLE 2. PESTICIDE ILLNESS**

- R9-4-201. Pesticide Illness Reporting Requirements

**ARTICLE 3. BLOOD LEAD LEVELS**

- R9-4-301. Reporting Significant Blood Lead Levels

## APPENDIX C-2

### *Arizona Administrative Code*

#### ARTICLE 1. DEFINITIONS

##### **R9-4-103. Definitions: Blood Lead Levels**

In Article 3, Blood Lead Levels, unless the context otherwise requires:

1. "Physician" means a person engaged in the practice of medicine and licensed pursuant to A.R.S. Title 32, Chapter 13 or 17.
2. "Whole human blood" means blood taken from any person, alive or dead, which has not been separated into its plasma, erythrocyte, leukocyte and/or thrombocyte components.

Adopted effective August 15, 1989 (Supp. 89-3). Amended effective March 4, 1993 (Supp. 93-1).

#### ARTICLE 3. BLOOD LEAD LEVELS

##### **R9-4-301. Reporting Significant Blood Lead Levels**

- A.** Any physician who finds evidence of lead in whole human blood at or above 10 micrograms of lead per deciliter of whole blood shall file a report of an elevated blood lead level with the Department as follows:
1. Reports shall be made within five days of the date of finding the level to be elevated.
  2. Reports shall be by telephone or submitted in writing on forms supplied by the Department.
  3. All reports shall include the patient's name, address, telephone number, the date of birth, race or ethnicity, gender, occupation, the level of lead and the date the blood lead level was found to be elevated. The report shall also include the name and address of the laboratory making the determination, and the name, address and telephone number of the person making the report.
- B.** Clinical laboratory directors or their designated representatives who find evidence of lead in a sample of whole blood at or above 10 micrograms of lead per deciliter of whole blood shall file a report of an elevated blood lead with the Department as follows:
1. Reports shall be made within five working days of the date of finding the level to be elevated.
  2. Reports shall be by telephone or submitted in writing on forms supplied by the Department.
  3. All reports shall include the patient's name, address, telephone number, the date of birth, race or ethnicity, gender, the name of the patient's physician, the level of lead, and the date the blood lead level was found to be elevated. The report shall also include the name and address of the laboratory making the determination.